

List of Plants

C SUCCINIC-ACID

Chemid

SUCCINICACID

Dosage

LD50=8,530 (orl rat)

Merck 11th Edition

LDlo=2,000 (scu frg)

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	*Reference
Abies alba	Resin, Exudate, Sap	--	--		*
Achillea millefolium	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Achillea millefolium	Plant	--	--		*
Aconitum napellus	Plant	--	--		*
Aconitum napellus	Root	--	--		*
Actinidia chinensis	Plant	--	--		*
Allium sativum var. sativum	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
Allium cepa	Leaf	--	--		Soldatenkov, S. V., Mazurova, T. A., Rantselev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Allium cepa	Bulb	--	--		Soldatenkov, S. V., Mazurova, T. A., Rantselev, A. N. 1960. Organic Acids of Onion and Spinach. Trudy Petergof Biol. Inst., Leningrad Gosudarst Univ Im AA Zhdanova, 18: 55-61.
Allium schoenoprasum	Leaf	--	--		*
Alocasia macrorrhiza	Plant	--	--		*
Angelica archangelica	Plant	--	--		Pakistan Encyclopedia Planta Medica. 1986.
Angelica sinensis	Root	--	--		Jim Duke's personal files.
Apium graveolens	Root	--	--		*
Apium graveolens	Pt	--	--		*
Arnica montana	Rhizome	--	--		*
Asparagus officinalis	Shoot	--	--		*
Atropa bella-donna	Leaf	--	--		*
Averrhoa carambola	Fruit	--	2200.0	1.0	Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Brassica oleracea var. gemmifera	Leaf	--	--		*

<i>Brassica oleracea</i> var. <i>sabellica</i> L.	Leaf	--	--		*
<i>Brassica oleracea</i> var. <i>botrytis</i> L.	Plant	--	--		*
<i>Brassica oleracea</i> var. <i>botrytis</i> L.	Flower	--	--		*
<i>Brassica oleracea</i> var. <i>capitata</i> L.	Leaf	--	--		Jim Duke's personal files.
<i>Brassica oleracea</i> var. <i>italica</i>	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
<i>Calea zacatechichi</i>	Plant	--	--		*
<i>Chelidonium majus</i>	Plant	--	--		*
<i>Citrus sinensis</i>	Fruit	--	--		*
<i>Citrus aurantiifolia</i>	Fruit	--	--		*
<i>Cocos nucifera</i>	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Cocos nucifera</i>	Root	--	--		Jim Duke's personal files.
<i>Conyza canadensis</i>	Plant	--	--		*
<i>Coriaria thymifolia</i>	Plant	--	--		*
<i>Datura stramonium</i>	Plant	--	--		*
<i>Daucus carota</i>	Root	--	--		*
<i>Digitalis purpurea</i>	Leaf	--	--		*
<i>Eriobotrya japonica</i>	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Eschscholzia californica</i>	Root	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
<i>Euphorbia tirucalli</i>	Plant	--	--		*
<i>Ficus carica</i>	Fruit	--	--		*
<i>Ficus carica</i>	Fruit Juice	--	--		Shiraishi, S. C., Kawakami, K., Widodo, S. E., Shiraishi, M., Kitazaki, M. 1996. Organic acid profiles in the juice of fig fruits. Journal of the Faculty of Agriculture Kyushu University, 41(1-2): 29-33.
<i>Fritillaria thunbergii</i>	Bulb	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Garcinia cambogia</i>	Fruit	--	--		Lewis, Y. S., Neelakantan, S. 1965. (-)-hydroxycitric acid, the principle acid in the fruits of <i>Garcinia cambogia</i> Desr. Phytochemistry 4: 619-625.
<i>Geranium thunbergii</i>	Plant	--	--		*
<i>Ginkgo biloba</i>	Pollen Or Spore	--	--		Jim Duke's personal files.
<i>Ginkgo biloba</i>	Leaf	--	--		Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of <i>Glycyrrhiza-glabra</i> . Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
<i>Glechoma hederacea</i>	Plant	--	--		Oriental Materia Medica (three volumes by Dr. Hsu and collaborators)
<i>Glycine max</i>	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Glycine max</i>	Root	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Glycine max</i>	Sprout Seedling	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Helianthus annuus</i>	Leaf	--	--		*

<i>Hippophae rhamnoides</i>	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Juniperus communis</i>	Leaf	--	--		*
<i>Kalanchoe daegrimontiana</i>	Plant	--	--		*
<i>Kalanchoe pinnata</i>	Plant	--	--		*
<i>Lupinus albus</i>	Seed	--	--		*
<i>Lycopersicon esculentum</i>	Fruit	--	--		*
<i>Malus domestica</i>	Plant	--	--		*
<i>Mangifera indica</i>	Fruit	--	--		*
<i>Medicago sativa</i>	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Melissa officinalis</i>	Plant	--	--		*
<i>Morus alba</i>	Leaf	--	--		*
<i>Musa x paradisiaca</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Musa x paradisiaca</i>	Leaf	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
<i>Nicotiana tabacum</i>	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Ocimum basilicum</i>	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
<i>Opuntia ficus-indica</i>	Fruit	--	--		*
<i>Panax ginseng</i>	Root	--	--		*
<i>Panax quinquefolius</i>	Plant	--	40000.0	1.0	*
<i>Papaver somniferum</i>	Latex Exudate	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Petroselinum crispum</i>	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
<i>Petroselinum crispum</i>	Root	--	--		*
<i>Phaseolus vulgaris</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Physalis ixocarpa</i>	Fruit	10.0	20.0	-1.0	*
<i>Piscidia piscipula</i>	Plant	--	--		*
<i>Pistacia vera</i>	Seed	--	--		*
<i>Pisum sativum</i>	Seed	--	--		*
<i>Plantago asiatica</i>	Plant	--	--		*
<i>Plantago major</i>	Plant	--	--		*
<i>Prunus cerasus</i>	Fruit	--	--		*
<i>Prunus armeniaca</i>	Fruit	--	--		*
<i>Prunus domestica</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Pteridium aquilinum</i>	Plant	--	--		*
<i>Pueraria pseudohirsuta</i>	Root	--	--		*
<i>Pueraria montana</i>	Root	--	--		*

<i>Punica granatum</i>	Fruit	--	--		*
<i>Quisqualis indica</i>	Fruit	--	--		*
<i>Rheum rhabarbarum</i>	Pt	--	--		*
<i>Ribes rubrum</i>	Fruit	--	--		*
<i>Ricinus communis</i>	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rosa canina</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rubus idaeus</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Rubus fruticosus</i>	Leaf	--	--		*
<i>Rubus idaeus</i>	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Sarcostemma acidum</i>	Plant	--	--		*
<i>Solanum tuberosum</i>	Plant	--	--		*
<i>Sophora pachycarpa</i>	Leaf	--	--		*
<i>Sorbus aucubaria</i>	Fruit	--	--		*
<i>Stevia rebaudiana</i>	Plant	--	4000.0	-1.0	Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
<i>Tamarindus indica</i>	Fruit	--	--		*
<i>Terminalia chebula</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Urtica dioica</i>	Plant	--	--		*
<i>Vaccinium myrtillus</i>	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Vitis vinifera</i>	Fruit	--	--		*
<i>Zea mays</i>	Plant	--	--		*